

CLAIMS

1. Method of transmitting blocks of data, in which, for at least one of said blocks of data, at least one parameter associated with this block of data is transmitted, said parameter representing the relative importance of the block of data associated with this parameter within the message transmitted by all the blocks of data, characterised in that the data are coded by means of a channel coding method which does not take into account said parameter.

2. Method of decoding blocks of data, for which a signal containing at least one parameter associated with at least one of these blocks of data has been transmitted, said parameter representing the relative importance of the block of data associated with this parameter within the message transmitted by all the blocks of data, characterised in that the data have been coded by means of a channel coding method which does not take into account said parameter, and in that

- said parameter is extracted from the signal containing it, and
- said parameter is used as a guide for the decoder so that data judged to be more important than others may benefit from a channel decoding of higher quality.

3. Method according to Claim 1 or Claim 2, characterised in that said channel decoding is an iterative decoding.

4. Method according to any one of the preceding claims, characterised in that the blocks of data are transmitted in order of decreasing importance and, where the parameter associated with a block of data newly received has not been able to be decoded correctly, a parameter identical to the one associated with the previous block of data is allocated to this new block of data.

5. Method according to any one of the preceding claims, characterised in that, for said transmission, a signal consisting of bursts of bits is transmitted, each burst containing on the one hand one or more of said blocks of data either complete or fragmented over several successive bursts, and on the other hand the parameter associated with the most important data

appearing in the following burst.

6. Method of transmitting blocks of data which have been coded by means of a channel coding method compatible with an iterative decoding, characterised in that, for at least one of said blocks of data, at least one
5 parameter (IN) associated with this block of data is transmitted, said parameter (IN) indicating the minimum number of iterations to be applied by an iterative coder during the decoding of the block of data associated with this parameter (IN).

7. Method of decoding blocks of data which have been coded by
10 means of a channel coding method compatible with an iterative decoding, characterised in that, a signal containing at least one parameter (IN) associated with a block of data having been transmitted for at least one of these blocks of data,

- said parameter (IN) is extracted from the signal containing it, and
- 15 - said parameter (IN) is used as an indicator of the minimum number of iterations applied by the iterative decoder to the block of data associated with its parameter (IN).

8. Method according to Claim 6 or Claim 7, characterised in that
20 the value of said parameter is the same for all the blocks of data forming part of the same message.

9. Method according to any one of Claims 1 to 8, characterised in that said parameter is transmitted over the same channel as the associated data.

10. Method according to any one of Claims 1 to 8, characterised in
25 that said parameter on the one hand and the associated data on the other hand are transmitted over separate channels.

11. Method according to any one of Claims 1 to 10, characterised in that said parameter undergoes the same channel coding as the associated data.

30 12. Method according to any one of Claims 1 to 10, characterised in that said parameter undergoes no channel coding, or undergoes a channel coding different from the one undergone by the associated data.

13. Method according to any one of Claims 1 to 12, characterised in that there are transmitted firstly the values of parameters corresponding to all the blocks of data in the same message and secondly these blocks of data.

14. Device for processing (46) blocks of data intended to be transmitted by means of a method according to Claim 1 or Claim 6, characterised in that it has:

- means (13a, 20) for obtaining said parameter, and
- means (30) for creating a link between this parameter and the associated block of data with a view to the transmission of this parameter and this block of data.

15. Device for assisting with the decoding (331) of blocks of data which have been transmitted by means of a method according to Claim 1 or Claim 6, characterised in that it has:

- means (310) for extracting said parameter from the signal containing it, and
- means (320) for, on the basis of said parameter, assisting a decoder responsible for decoding said blocks of data.

16. Device for coding (47) blocks of data, characterised in that it has:

- at least one device for processing blocks of data according to Claim 14, and
- at least one channel coder (40)

17. Device for decoding (332) blocks of data, characterised in that it has:

- at least one channel decoder (300), and
- at least one device for assisting with decoding according to Claim 15.

18. Apparatus for transmitting coded digital signals (48), characterised in that it includes a coding device according to Claim 16, and in that it has means (45) for transmitting said blocks of coded data and said parameters.

19. Apparatus for receiving coded digital signals (333), characterised in that it includes a decoding device according to Claim 17, and in

that it has means (60) for receiving said blocks of coded data and said parameters.

20. Telecommunications network, characterised in that it includes at least one apparatus according to Claim 18 or Claim 19.

5 21. Data storage means which can be read by a computer or microprocessor storing instructions of a computer program, characterised in that it makes it possible to implement a method according to any one of Claims 1 to 13.

10 22. Data storage means which is removable, partially or totally, and which can be read by a computer and/or microprocessor storing instructions of a computer program, characterised in that it allows the implementation of a method according to any one of Claims 1 to 13.

15 23. Computer program, containing instructions such that, when said program controls a programmable data processing device, said instructions mean that said data processing device implements a method according to any one of Claims 1 to 13.